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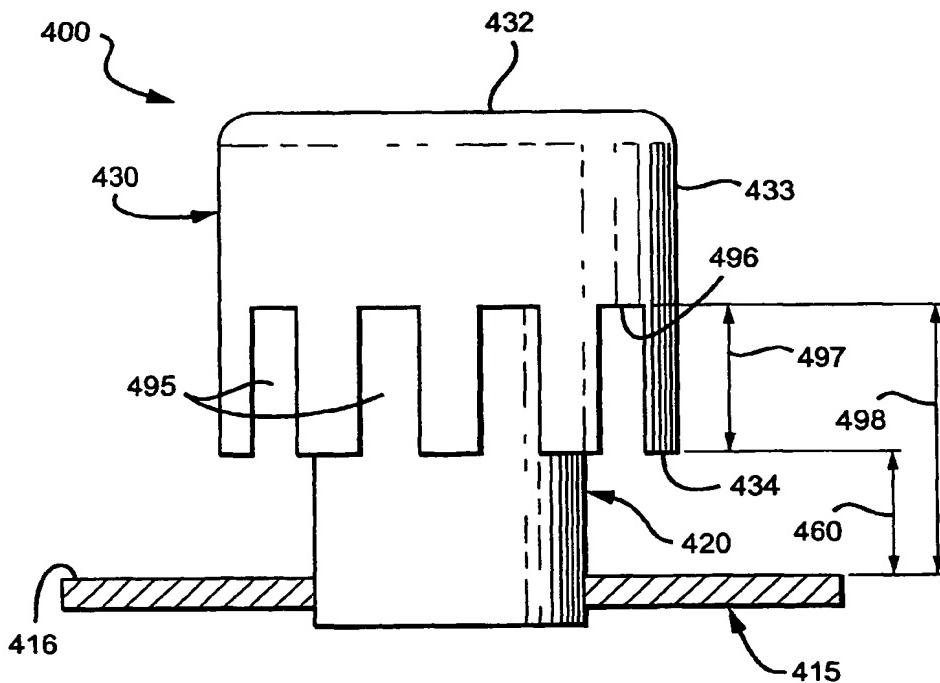
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(54) Title: METHODS AND APPARATUS FOR MIXING FLUIDS



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(57) Abstract: A bubble cap (400) has a cap (430) with at least one slot (495) and a riser (420), configured with a skirt height (460) of at least 4 cm, such that  $1.5 * \text{Skirt Height (cm)} + [\text{Slot Length (cm)} - \text{Exposed Slot Height (cm)}]$  is greater than or equal to 7.5, and posed such that a liquid fluid and a gas flow co-currently upwardly in a space between the riser (420) and the cap (430).